Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

NYNEX / Teleport Arbitration	**)**	**D.P.U. 96-73/74**
NYNEX / Brooks Fiber Arbitration	**)**	**D.P.U. 96-75**
NYNEX / AT&T Arbitration	**)**	**D.P.U. 96-80/81**
NYNEX / MCI Arbitration	**)**	**D.P.U. 96-83**
NYNEX / Sprint Arbitration	**)**	**D.P.U. 96-94**

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INITIAL BRIEF OF
TELEPORT COMMUNICATIONS GROUP, INC.
ON
PRICING FOR UNBUNDLED NETWORK SERVICES
(PHASE IV)

Keith J. Roland
Roland, Fogel, Koblenz & Carr, LLP
1 Columbia Place
Albany, New York 12207
(518) 434-8112

Paul Kouroupas
Teleport Communications Group, Inc.
One Teleport Drive, Suite 301
Staten Island, New York 10311-1011
(718) 355-2634

Attorneys for Teleport Communications Group, Inc.

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I. PRELIMINARY STATEMENT

Teleport has identified two areas to be arbitrated in this phase of the consolidated proceeding:

1. the proper inter-company pricing for connection to the E-911 network; and

2. establishment of rates for transport and termination of local traffic, which should include an option for a flat capacity based charge.

Teleport's position on these issues, and its support therefor, was set forth in its filing of October 4, 1996, which has been marked as TCG-1.

II. E-911 PRICING

Because NYNEX already recovers its E-911 costs through a separate statutory funding mechanism, and has failed to provide any cost justification for its proposed charges, a per call rate (equivalent to the rate for "traditional" 911 calls) should be established.

TCG has installed direct connections between its network and the E-911 network which serves the State of Massachusetts. When a TCG customer seeks emergency assistance, that customer dials "911", and the call is routed directly by TCG to one of four E-911 tandems. TCG utilizes a dedicated port on each of the four E-911 tandems for this connection.

The issue is what price should be charged by NYNEX for completion of E-911 calls.[1] NYNEX has offered no cost study, or other evidence, of the costs associated with receiving E-911 calls from Teleport at the E-911 tandems, and routing those calls to the appropriate Public Safety Answering Point (PSAP) at which law enforcement personnel answer the calls and provide a response.

TCG identified E-911 connections as an essential unbundled service element early in the NYNEX/TCG interconnection negotiations. Notwithstanding its awareness of that issue, and the issuance of the August 8, 1996 FCC Local Competition Order which established standards for determining costs (and rates) for unbundled service elements, NYNEX

[1] In areas of the State where E-911 has not been implemented, customers of TCG and NYNEX utilize "traditional" 911 service, which does not involve transmission of ANI, the use of data bases, or special routings. Because "traditional" 911 traffic is comparable to other traffic which might be delivered by TCG to NYNEX for local termination, the parties have agreed that "traditional" 911 calls will be charged in the same manner as other local calls delivered by TCG to NYNEX for termination.

deliberately chose not to introduce any evidence on the cost of providing this essential unbundled network element.[2]

Because no evidence has been adduced by NYNEX showing that its costs for handling E-911 calls are any different from the costs of handling other calls, NYNEX has failed to meet its burden of proof. Accordingly, the charge for E-911 calls should be set at the same level as charges for all other calls delivered by CLECs to NYNEX for termination.

In its October 11 submission, after acknowledging it has not developed TELRIC costs (or any other costs) for E-911, NYNEX proposed using either (1) the rates set forth in interconnection arrangements between NYNEX and other carriers,[3] or (2) continuing the interim pricing arrangement reached between TCG and NYNEX in 1995. Neither of those alternatives is appropriate or acceptable.

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[2] The NYNEX submission of October 11 stated that "NYNEX has not had an opportunity to develop TELRIC costs for access to the E-911 system in accordance with the Local Competition Order. NYNEX estimates that this study will not be available before April 1, 1997" (New England Telephone & Telegraph Company Submission on Interconnection Pricing Issues, October 11, 1996, at p. 5). In its rebuttal submission of October 18, 1996, at p. 46, NYNEX stated "given that the FCC's TELRIC costing methodology has been stayed by the Eighth Circuit", it does not believe that it would be required to use the TELRIC methodology for developing E-911 costs. Accordingly, while confirming that it would provide a cost study by April 1, 1997, NYNEX amended its earlier statement that it would submit a TELRIC study, and merely stated that it would come forward "with a costs analysis that is appropriate for E-911 access." "Appropriate" was not defined. (NYNEX rebuttal submission, October 18, 1996, at p. 47).

[3] The agreement with other carriers is for a monthly rate of $252 per port for each DS-1 connected to an E-911 tandem, plus $100 per month for each DS-0 activated within the DS-1. As discussed below, that could result in an effective charge per DS-1 of $2,250 or more.

First, the interim pricing between TCG and NYNEX allocates NYNEX's alleged E-911 "costs" on a per-number basis. There is no evidence in this record as to how these costs are calculated, and it is doubtful they are based on LRIC or TELRIC studies. TCG has never endorsed the legitimacy of NYNEX's interim pricing, and accepted the interim arrangement (along with other arrangements it did not believe were justified) in order to obtain an interconnection agreement so that TCG could begin providing service in Massachusetts. The actual E-911 pricing in the interim agreement was not critical, since the agreement provided for an eventual "true up".

Secondly, the fact that some other carrier agreed to a monthly port and trunk rate in its interconnection agreement cannot and should not be used to validate the appropriateness of the particular term in question. As the Department found in its recent decision on Phase I Arbitration issues, participants in other interconnection agreements may have had different priorities, or may not have been impacted in the same manner as a different carrier with respect to a similar term:

> "As Brooks notes, the market it seeks to serve is in zone 3, while the other carriers intend to serve other parts of the state. One can scarcely have expected the other carriers to negotiate hard on behalf of a service territory in which they have little commercial interest; and Brooks should not be bound by the terms of an agreement among other parties that unfairly works to its detriment."

Phase I Order, November 12, 1996, at p. 17.

Furthermore, the Department rejected the notion that it could not address an issue because it had been part of the "give and take" of negotiations:

> "We add, with regard to the latter argument, that to accept it would render the entire arbitration process a nullity. To say that the Department may not decide particular unresolved aspects of the interconnection agreement because the previous negotiations have resulted in some trading on issues would leave this process with no purpose."

Phase I Order, November 12, 1996, at p. 22.

The interim agreement provides for a per line charge to TCG based upon the relative numbers of customer listings in the E-911 data base. The revenues which would be generated for NYNEX under a continuation of the interim arrangement would far exceed any costs NYNEX might incur, and would impose a severe economic burden on TCG. They would also result in a double recovery and unjust enrichment to NYNEX.

The only issue here is the cost of handling a call after it is delivered to the NYNEX E-911 tandem. The costs of delivering the call from TCG to the E-911 tandem, and for transmitting ANI (automatic number identification) to the tandem, will be borne by TCG. Nor is there an issue over the cost of routing and delivering a call to the secondary tandem if the primary tandem trunks are unavailable, or to the NYNEX TOPS tandem, if the secondary tandem trunks are unavailable; those costs will similarly be borne by TCG. All that is at issue here is the cost to NYNEX of receiving E-911 calls at its E-911 tandem port and routing those calls to the proper PSAP.

As indicated earlier, NYNEX is not entitled to receive any additional charges for E-911 traffic because it is already recovering those costs through a statutory mechanism.

Until 1990, NYNEX was prohibited by statute from charging residential

customers for Directory Assistance. See §19 of Chapter 159 of the General Laws. Accordingly, the costs of providing DA were included in the company's overall revenue requirements and recovered from the general customer base. Those costs were included in the "going-in rates" of NYNEX's Incentive Regulatory Plan, and are still recovered through NYNEX's charges for other services.

In 1990, the statute was amended to require establishment of the E-911 network, as well as a Relay System to serve handicapped persons. In order to assure that NYNEX recovered all of the costs of those systems, the statute was amended to authorize the company to levy a charge for DA calls, with all of the DA revenues (not just the revenues in excess of DA costs) to be used to pay for the E-911 and Relay systems. See Chapter 291 of the Laws of 1990, amending §§19 and 19A of Chapter 159.[4] To the extent that DA revenues exceeded E-911 and Relay costs, a "dividend" was to be paid in the form of a monthly bill credit for residential customers.[5] That dividend is still in effect, indicating NYNEX is recovering DA revenues in excess of E-911 and Relay costs.

Thus, NYNEX is already recovering all of the costs of operating its E-911 tandems, including the ports for which it now seeks to charge TCG. To allow NYNEX to impose additional charges on TCG would result in a double recovery of those costs.

As discussed above, the arrangements agreed to by other carriers for E-911

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[4] The statute thus recognized that the costs of DA were already being recovered in other rates, so that all new DA revenues could be applied to E-911 and Relay costs.

[5] NYNEX is assured of recovering all its E-911 costs because of a "true-up" mechanism. See, D.P.U. 91-68, July 12, 1991.

service include a per trunk charge of $252 per month for each DS-1 trunk connected to an E-911 tandem plus $100 per month for each DS-0 activated within the DS-1. Thus, if TCG were to activate 20 of the 24 DS-0 channels associated with a DS-1 connected to an E-911 tandem, TCG would be required to pay a total of $2,252 per month for a port connection.[6] TCG knows of no LEC in the country which charges $2,250 per port for ports which cost no more than $252.

However, even the $252 port cost is overstated. NYNEX has not submitted any cost study which supports that number; indeed, its TELRIC studies for unbundled switching elements - overstated as they are - produce a per month tandem dedicated trunk cost of $17.03 plus a per minute tandem switching peak minute cost of $.004516.[7] E-911 tandem costs may be somewhat different, but not by thousands of dollars. If NYNEX wants to charge rates many times greater for port connections that what its TELRIC cost studies demonstrate, it has the burden of proof to show that E-911 port costs are in fact different from other tandem interconnection costs, and that it is not recovering those costs through the E-911 DA funding mechanism already in place. No such evidence has been presented.

Accordingly, the E-911 interconnection rate should be established at the same charge as is applicable to traditional 911 and other local calls delivered by a CLEC to NYNEX for termination.

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[6] This consists of $252 for the DS-1 port plus $100 per month for each of the activated 20 channels.

[7] October 24, 1996, Revised Testimony of Michael Anglin, p. 22.

III. RATES FOR TRANSPORT AND TERMINATION OF TRAFFIC

Section 252(d)(2)(A) of the Telecommunications Act of 1996 states that charges for transport and termination of traffic will not be deemed just and reasonable unless:

> (i) such terms and conditions provide for the mutual and reciprocal recovery by each carrier of costs associated with the transport and termination on each carrier's network facilities of calls that originate on the network facilities of the other carriers; and
>
> (ii) such terms and conditions determine such costs on the basis of a reasonable approximation of the additional costs of terminating such calls.

Under the FCC's August 8 Local Competition Order, the methodology for establishing costs (and thus prices) for transport and termination of traffic is to be the same as that utilized for interconnection and unbundled elements. States were given three options for establishing transport and termination rate levels. A state could conduct a thorough review of economic studies using the TELRIC methodology. Alternatively, the state could adopt a default price pursuant to the default proxy range established by the FCC; if a default price were used, the state would be required to subsequently conduct a TELRIC-based economic cost study. As a third alternative, states would be authorized to utilize a "bill and keep" arrangement. Local Competition Order, para. 1054-1055.

Because of the stay issued by the Eighth Circuit, the TELRIC standard is not currently binding on the Department. In TCG's view, this means the Department is authorized to establish interconnection rates based on LRIC (Long Run Incremental Costs), in accordance

with its previous measurements of marginal costs, rather than being required to utilize TELRIC calculated rates.

Mr. Montgomery set forth the rationale for utilizing LRIC costing in this proceeding, rather than TELRIC:

> "At least in the case of usage cost studies, there is a very good case, with respect to transport and termination, that the Department should adhere to the marginal-cost standard that it established for NYNEX several years ago. For one thing, the language in the Telecommunications Act refers to the additional cost of transport and termination of local calls. In this case, we're talking principally about termination. That could well be seen as a marginal cost standard.
>
> There may be some markup above marginal costs, and in fact prices typically are set above marginal costs; but the costing standard that the Department articulated six or seven years ago is still appropriate under the Telecommunications Act."

November 4, 1996, TR 16/21.

Another critical reason exists for using LRIC costs to establish interconnection rates. In D.P.U. 94-185, the Department allowed NYNEX to use LRIC costing as the floor for its competitive service offerings. But if NYNEX prices services to TCG on a TELRIC basis, but sets rates for its own customers on a LRIC basis, TCG will be caught in a significant price squeeze. That will result from TCG facing an "intermediate good" input price which may be higher than its competitor's retail price for the complete service. As a result, TCG could be prevented from competing in the marketplace.

Given that LRIC costs will generally be lower than TELRIC costs, TCG recommends that rates for termination of traffic be established as follows:

Termination of traffic at NYNEX's end office $0.002 per minute

Termination of traffic at NYNEX's tandem: $0.004 per minute (including transport to the end office and switching at the end office)

Termination of traffic at TCG's switch: $0.004 per minute

Each carrier should also have the option of compensating the other on a flat rate basis, utilizing a flat monthly fee for a DS-1 level of capacity regardless of the actual number of minutes sent. Those flat rate charges should be based upon an assumed use of 120,000 minutes per month multiplied by the applicable per minute rate set forth above or otherwise determined by the Department.

The per minute rates proposed by Teleport fall squarely within the permissible range of rates specified by the FCC in its Local Competition Order, and detailed in §51.707 of the FCC's Rules. The rates would be applicable to termination of local calls as that term is defined by each carrier's respective tariff.

Other participants in the consolidated arbitration will be able to demonstrate that NYNEX's TELRIC rates, including its rates for unbundled switching, significantly overstate costs for a myriad of reasons, including but not limited to use of inappropriate "fill factors", overassessment of joint and common costs, and excessive costs of capital. Accordingly, it is appropriate to utilize the FCC's proxy rates as a reasonable estimate of NYNEX's actual costs. TCG's selection of $0.002 and $0.004 per minute is based on the fact that the FCC stated there was strong support for rates at the lower end of its proxy range, coupled with the general

principle that LRIC costs will generally be lower than TELRIC costs.

It is also significant that NYNEX's rates are out of proportion to rates found appropriate in other jurisdictions. As summarized by TCG witness W. Page Montgomery:

> "I've examined the per-minute rates that NYNEX filed originally and in the updated October 24 cost material, and I found the numbers that NYNEX projects for the cost of usage to be extremely high compared to not only the FCC proxy range, but compared to most other ILEC cost studies that I've looked at. NYNEX's range of costs in the peak period is from .75 cents in the urban dense areas to 1.63 cents per minute in the rural area. These numbers are considerably higher than the FCC proxy range, and they're also higher than all of the other usage cost studies for other incumbent LECs that I've reviewed since the FCC Order came out."

Transcript of November 4, 1996, TR 14-19.

Mr. Montgomery, who had participated in a number of other state proceedings, could not think of any factors unique to NYNEX which would justify its rates being so out of line with those of other ILECs:

> "I think the spirit of the FCC cost methodology, as well as the general tenor of incremental cost methodologies is that regional variations should be minimized. I am not aware of anything with respect to NYNEX's forward-looking incremental costs that would cause them to be that much higher than the costs for the other companies that I've looked at. And just so you will know, I've looked at local-usage incremental-cost studies filed after the FCC Order for Southwestern Bell, GTE, Ameritech, U.S. West and Pacific Bell. So therefore - actually, Pacific Bell was prior to the August 8 Order; I take that back. Therefore, I have a relatively good base of comparison. Now, I may not agree with all of the cost data that these incumbents have submitted...but even with those heavy cost - weighting assumptions in their studies, the numbers they produce are substantially below the numbers that NYNEX has submitted in its October 24 cost study."

November 4, 1996, TR 15/12.[8]

NYNEX has failed to meet its burden of proof to establish that its costs are just and reasonable. Accordingly, it is appropriate to use a number at the lower end of the proxy range, which TCG has proposed.

INTERCONNECTING CARRIERS SHOULD HAVE THE OPTION TO CHOOSE A USAGE OR CAPACITY-BASED FLAT RATE

To eliminate serious barriers to competitive growth, interconnecting carriers should have the option of choosing either a per minute usage rate or a flat, capacity-based rate. That approach would be consistent with the recent determination of the New York Public Service Commission:

> "A number of incumbents object to the requirement that an unmeasured service alternative be offered. They asserted that the dual availability of flat rate and usage-based charges could be discriminatory, and that flat rate options were not compensatory.
>
> Flat rate options benefit all carriers, incumbents and new entrants alike, by reducing the administrative costs associated with minute-of-use billing, and are particularly useful to small incumbents who may not have the facilities to bill on a usage basis. Flat rate charges should cover costs, which insures that, in the aggregate, they will be

[8] The NYNEX numbers are also considerably greater than the marginal costs of switching of $.00258 for intra-office peak minutes, and $.0096 for inter-office peak minutes, determined during the Incentive Case. See D.P.U. 94-50, May 12, 1995, p. 225.

> set at compensatory levels. Furthermore, because of the different costs associated with the provision of flat rate and usage based options, rates which differ are not per se discriminatory".

"Order Instituting Framework For Directory Listings, Carrier Interconnection and Intercarrier Compensation", Case 94-C-0095, September 27, 1995, p. 6.

Pursuant to the New York Commission's directive, NYNEX does in fact offer interconnecting carriers a choice for interconnection between a per minute usage rate or a flat rated port rate. The description of the two options is set forth in New York Telephone's 914 tariff now on file with the New York PSC.[9]

A similar flat rate option for transport and termination should be adopted in Massachusetts to account for (1) the nature of the Massachusetts retail telecommunications market, and (2) peak and off-peak usage. It is also appropriate because the interconnection costs incurred by NYNEX are principally related to the port capacity of its switches.

The appropriateness of using capacity-based reciprocal intercarrier agreements

[9] The relevant pages from New York Tel's 914 tariff were included as Exhibit 2 to TCG's October 4 submission (in the record as TCG - 1). Section 10.4.1 of the tariff sets forth a per minute of use schedule, for end office and tandem interconnections. Section 10.4.2 sets forth a flat rate schedule for the same end office and tandem interconnections. The DS-1 port termination monthly rate, which, significantly, covers lata-wide termination, is $950.00 for an end office connection, and $1,710 for a tandem connection. However, those port rates are very much in dispute, because they are many times in excess of the actual port costs of $255 and $302 developed by New York Telephone in an earlier access charge proceeding before the PSC. (See Ex-8 to TCG-1, which is a summary from NYNEX's earlier cost study). The 914 rates are in effect in New York on a temporary basis only, subject to pending Commission review of the appropriate costs of the port.

was demonstrated by Teleport witness Gerald W. Brock in D.P.U. 94-185.[10]

As Mr. Brock testified, "efficient local competition would be promoted by a capacity-based reciprocal inter-carrier compensation arrangement which recognizes the costs incurred in establishing interconnection arrangements." The form of such a capacity-based agreement would be a flat monthly fee for the termination of traffic over a DS-1 facility.[11]

Mr. Brock set forth four advantages of capacity based charges:

> "First, capacity-based charges are the natural means of assessing call completion charges in a competitive market. Second, capacity-based charges afford carriers the retail pricing flexibility desirable in a competitive environment. Third, capacity-based charges are administratively simple. Fourth, capacity-based charges represent a good transitional vehicle to a "bill and keep" arrangement which would prevail when traffic between carriers is balanced."

Testimony of Gerald Brock, Exh. 5 to TCG-1, p. 5.

Mr. Brock continued:

> "A competitive market tends to force the price structure to match the cost structure. Telecommunications costs are determined largely by the cost of meeting peak capacity requirements, while the cost of carrying off-peak traffic is essentially zero. Therefore, in a competitive communications market, a company that prices by minutes of use would be at a competitive disadvantage to companies that used cost-related capacity-based pricing."

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[10] Mr. Brock's testimony in D.P.U. 94-185 is a portion of Exhibit 5 to TCG-1. Three position papers by Mr. Brock relating to the economics of interconnection were included as Exhibit 7 in TCG-1. All of that material was adopted by Mr. Montgomery.

[11] TCG has advocated a "bill and keep" mechanism for intercarrier compensation. Its position in this Massachusetts proceeding represents a compromise from that basic "bill and keep" position, and continues to recognize the validity of capacity related charges.

Testimony of Gerald W. Brock, p. 6.

Mr. Brock offered an analogy to the competitive market for automobile rentals where the actual costs incurred by the rental company were capacity related (based on the time the car was rented) rather than usage related (based on the number of miles driven). In those circumstances, it would be inefficient to establish prices on a usage sensitive basis, and a competitor which sought to do so would be forced out of the market.

Those pricing principles are paralleled in the telecommunications market, where a truly competitive company would impose prices related to capacity rather than minutes of use in order to survive in the competitive marketplace. The only reason that capacity-based charges would not develop would be the presence of a dominant carrier, which could leverage its monopoly and impose per minute charges (Brock Testimony, p. 7). The purpose of regulation is to override that monopoly power, and adopt pricing mechanisms which would, in fact, be adopted in a competitive market.

With respect to the need for maximum retail pricing flexibility, Mr. Brock pointed out that the retail telephone market in Massachusetts is characterized by the offering of both flat-rate local calling and measured-rate local calling, and that it would be extremely risky for a new entrant to offer flat-rate calling when it was required to pay the monopoly LEC to terminate traffic on a per-minute basis.

Capacity-based arrangements are also favored because they permit all carriers to develop their own unique time-of-day and volume discounts, which would not be possible in an environment where the monopoly carrier imposes per-minute interconnection charges (Brock

Testimony, pp. 8-9). With capacity-based charges, competing carriers would no longer have to price their services against a per-minute charge levied by the monopoly carrier. Instead, competitive carriers would have the freedom to price their services in any manner so long as at the end of the month they recover their capacity charge. That would afford a much greater degree of flexibility, and create many more options to consumers.

A capacity-based charge would be much simpler to administer than a usage charge, because it would entail only the monthly billing of a fixed charge. In contrast, per minute charges would require a complex and costly measuring and billing capability which not all carriers have yet developed.

Minutes of use interconnection charges fail to attain efficiency and lead to incorrect investment signals. Minutes of use pricing had been used extensively in the monopoly telecommunications industry, and had been mandated in the federal access charge environment. Although those per minute access charges were sustainable because of the monopoly structure of the local exchange industry, they distorted both consumer and business decisions away from maximum efficiency:

> "On the consumer side, the access charges made it expensive for long distance companies to service off peak residential customers. Long distance companies paid the same rate per minute to local telephone companies for traffic terminated late at night as they paid for traffic terminated at the peak of the business day. Consequently, discounted consumer rate plans for night calls that were established prior to the implementation of access charges became unprofitable. Long distance companies were forced to raise their prices to nighttime residential callers because of the artificial access charge structure, even though the nighttime calls (utilizing otherwise idle capacity) imposed practically no cost on either long distance or

local exchange companies."

Brock Testimony, p. 12.

In contrast, prior to development of the federal access charge system, an interim plan for long distance competition utilized access charges based on capacity used. That plan provided incentives for carriers such as MCI and Sprint to aggressively increase their residential customer base because residential calls were primarily off-peak and imposed little or no cost on the companies. Once the access charge plan was implemented with its per minute charges for all traffic regardless of when it occurred, the companies found that business traffic was more profitable than residential traffic. The incentives created by the minutes of use access charges thus distorted business marketing and investment decisions away from the efficient path (Testimony of Gerald W. Brock, p. 13).

In this proceeding, TCG proposed that capacity-based interconnection charges be determined based upon the relative use by each carrier during the busy hour.

Each carrier will make available to the other a DS-1 port for the termination of traffic at an end office or tandem. The ports would be priced to reflect the differing functions between end office and tandem. POTS traffic would be exchanged through use of two-way trunk groups. During each month, the carriers would measure the peak busy hour to determine the relative traffic flow over the intercarrier network. The port charges would then be allocated in accordance with the peak busy hour measurements. Thus, if the peak busy hour measurement determined that 75% of the traffic originated from carrier A and 25% of the traffic originated from carrier B, then carrier A would pay 75% of the port charge and carrier B

would pay 25% of the port charge.

For the intercarrier DS-1 network facility, either carrier could deploy the facility through the respective co-location arrangements. The charges for that facility would be allocated in accordance with the peak busy hour measurement and the deploying carrier's tariffed rate for the facility.

Teleport's proposal to use flat rated capacity charges would bring pricing closer to that which would occur under competitive conditions. It is consistent with the manner in which commercial providers of Internet services interconnect with one another in a competitive market environment. It is also in accord with the study released by the European Commission in 1994, which found that "the main costs associated with interconnection are long-lived capacity"; that interconnection rates be based on costs and set as a capacity charge; and that such charges should be based on the incremental cost of capacity required by the interconnector. See "The Economics of Interconnection" by Gerald W. Brock, April, 1995, Exh. 7 to TCG-1, pp. 2-3.

TCG witness W. Page Montgomery offered additional testimony on November 4 as to the economic advantages of utilizing a capacity charge for interconnection:

> "The advantages are several. First, a capacity charge is a surrogate usage charge, in the sense that as your usage per trunk builds up or your usage builds up, you have to build more trunks and hence pay more capacity charge. But unlike a per minute of use charge, you don't necessarily have the cost of measuring usage in a real time format. ...For a carrier like TCG, which is immature and has traffic disbursed over a wide geographic area, the costs of measuring usage in real time are not insignificant, and I believe they are inefficient." (November 4, 1996, TR 12/18).

A capacity charge would also increase usage on the network to make it more efficient, and encourage expansion of competitive options to residential customers. As summarized by Mr. Montgomery:

> "It's also clear that a capacity charge based as I have stated it would have inherent incentives for a firm like TCG to try to use - to try to fill up the trunk beyond the level of usage that it's paying for by selling more off-peak traffic. This has the happy and coincidental effect of also providing TCG incentives to market its services to customers who are more typically making use of the network in off-peak hours, evening and weekend hours. And, of course, those customers are residential customers. So it has the happy consequence of making competition more broadly available to customers other than the business customers that are obviously the first target for competition." (November 4, 1996, TR 13/24).

Mr. Montgomery also confirmed the disadvantage of TCG having to interconnect on a usage sensitive basis when many products were offered in the market on a flat rated basis:

> "Although, again, with respect to residential service in Massachusetts, there are substantial flat rate offerings, and I am aware that in the most recently approved compliance filing that NYNEX made as part of the Department's overall regulatory process they've expanded the offering of expanded calling zones and expanded flat rate offerings. So its possible - and I haven't done the analysis - that usage pricing could provide disincentives for a competitor to try to match the calling scope and flat rate calling that NYNEX offers residential customers." (November 4, TR 19/14).

For example, TCG could be placed in a difficult situation of providing service to high usage residential customers who would only take service from TCG on a flat rate basis (because the flat rate option was available from NYNEX). In that situation, if TCG were to offer flat rate pricing to the high usage customer, but was forced to pay NYNEX on a per

minute basis for interconnection, TCG would be caught in an inefficient pricing situation, and would be strongly disincented to serve the residential marketplace (November 4, TR 20/20).

Basing interconnection charges on capacity would not result in inefficient use of the network. To the extent that the capacity price was set appropriately, with due allowance for the initial low trunk loadings which could be expected, carriers such as TCG would have an inherent incentive to add more trunks in peak periods, and NYNEX would be compensated by receiving the additional trunk or port charges. Thus, so long as capacity pricing was properly set, if new capacity were required, NYNEX would be compensated appropriately (November 4, TR 21/11).

Basing interconnection charges on a flat capacity rate would also be consistent with the manner in which NYNEX constructs and uses its facilities itself. NYNEX builds facilities so that it can develop the capacity to provide service. Those capacity costs are fixed, regardless of the actual usage placed over the facility. The facilities are sized according to busy hour demand, which is a capacity element, rather than a total usage demand. Thus, when NYNEX installs a DS-1 switch port at one of its end offices, the cost for that port does not depend on the amount of traffic that would flow through the facility. Since the cost is port related, not minute related, charges should be based on ports.

It is also important that flat rate capacity charges, in addition to more accurately reflecting cost causation in the network, can be used to account for peak and off-peak costs which vary significantly. The rates proposed by TCG for flat rated ports are in fact intended to account for peak and off-peak usage.

TCG's flat rate pricing proposal was developed by multiplying the per minute rate applicable to carriers which choose that option by 120,000 assumed minutes of use. That 120,000 minutes represents the average number of peak minutes of traffic exchanged during a month, and was adopted for this purpose by the Connecticut Department of Public Utility Control in Docket 94-10-02 (November 4, TR 11/3).[12]

By utilizing the 120,000 minute figure, TCG is recognizing that a CLEC should receive the benefit of off-peak cost characteristics, which would have the "happy and coincidental effect" of providing TCG incentives to market its services to residential customers, who are also entitled to obtain the benefit of competitive offerings.

TELEPORT IS ENTITLED TO RECEIVE THE TANDEM RATE FOR TRAFFIC IT TERMINATES

When TCG delivers traffic to a NYNEX end office, the call will be terminated only to those end users located in the limited geographical area served by that local end office. In contrast, if TCG delivers traffic to a NYNEX tandem, the call will be terminated to any end

[12] NYNEX has criticized use of the 120,000 minute figure, arguing instead that the FCC "proxy rate" of 9,000 minutes per DS-0 should be utilized. However, as Mr. Montgomery pointed out, that FCC proxy was applied to trunking between a local exchange carrier and a long distance carrier, and continues to be used as a surrogate for interoffice transport and local transport in the access arena. It is not appropriate to utilize that proxy in connection with a TCG to NYNEX trunk. That is because TCG would be spreading its traffic out over multiple NYNEX offices, and therefore cannot expect to have the same type of trunk loading that would happen if NYNEX were interconnecting two of its own offices or even if a large long distance carrier, like AT&T, were connecting directly to a NYNEX end office (November 4, TR 11/3 - 12/11).

user located within the many end offices served by that tandem. Because the tandem serves a large geographical area, the rate for interconnection at the tandem is greater than for the end office.

When NYNEX delivers a call to TCG for termination to a TCG customer, it delivers traffic to TCG's switch which is the functional equivalent of a tandem because it serves TCG end users throughout the eastern LATA. Despite NYNEX's previous arguments to the contrary, both the FCC, and the New York State PSC, have determined that NYNEX should pay TCG tandem level interconnection charges; this Department should establish the same requirement.

The FCC addressed this issue in Section 51.711(a)(3) of its Rules:

> "(3) Where the switch of a carrier other than an incumbent LEC serves a geographic area comparable to the area served by the incumbent LEC's tandem switch, the appropriate rate for the carrier other than an incumbent LEC is the incumbent LEC's tandem interconnection rate."

TCG's switch in Boston falls into that category. It serves a geographic area comparable to the geographic area served by NYNEX's tandem, and TCG's cost of terminating calls reflects the broad geographical dispersion of its end users. It is therefore appropriate that NYNEX pay the tandem termination rate to TCG, regardless of whether that rate is set forth on a capacity or usage basis.

It is true that the Eighth Circuit stay applies to that Section of the FCC's Rules. The stay, however, does not determine that the FCC was incorrect on the merits of holding that TCG's network architecture, and the cost structure it faces, should entitle it to receive the

tandem termination rate.

Indeed, long before the FCC issued its local competition order, the New York State Public Service Commission, addressing the same issue, concluded that TCG was entitled to receive the tandem interconnection rate:

> "The requirement for equal meet point rates is a reasonable transitional approach, which recognizes that the architecture of new entrant networks is not likely to duplicate that of incumbents. Thus, while a new entrant's network may not have a tandem switch, where the access it provides an incumbent is functionally equivalent to a tandem, it will be allowed to charge the incumbent's tandem rates at the meet point.[1]
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> [1] Functional equivalence is not, in this context, measured by the size of the carrier's operation, or the architecture employed; rather, it is the ability to terminate calls to all customers served by a carrier's unique, stand alone network by delivery to a single point of interconnection.

"Order Instituting Framework For Directory Listings, Carrier Interconnection and Intercarrier Compensation", Case 94-C-0095, September 27, 1995, pp. 6-7.

Recent arbitration decisions in which TCG has been a party have also upheld TCG's entitlement to receive the tandem interconnection rate. See Maryland Public Service Commission Case 87-31, November 8, 1996, at p. 15; Pennsylvania Public Service Commission Docket A-310213, Decision F 0002, November 4, 1996; Virginia Public Service Commission Case PUC 960103, November 8, 1996. The same requirement should be adopted in Massachusetts.

THE RECORD DOES NOT SUPPORT NYNEX'S SEPARATELY

STATED TIME OF USE RATES FOR SWITCHING

After identifying what it purported to be the TELRIC costs of switching investment, NYNEX developed separate unit investments for the peak/off peak periods. It did that by converting busy hour investments to peak/off peak by examining "actual traffic data as it occurs between central office switches during each hour of the twenty-four hour day". Without further elaboration, the Company claimed that its peak traffic period occurred between 9:00 a.m. and 8:59 p.m. The percentage of overall usage during that peak period was then used to develop weighted investments by the percent of peak/off peak usage. See, October 24, 1996, Revised Testimony of Michael J. Anglin, pp. 17-18.

Unfortunately, NYNEX has not demonstrated that its economic or engineering approach was correct, or that the data utilized was appropriate or forward looking. First, as the Company notes, it is the peak period demand which determines the size of the investment required for a local switch. (Anglin Revised Testimony, p. 17, line 23). Since investment is sized for the busy hour, there is no reason to assume that investment can be apportioned by comparing total usage during one particular twelve hour period to total usage in a different twelve hour period.[13]

Furthermore, there is considerable doubt as to whether the existing usage patterns

[13] Furthermore, as with the selection of criteria for density zones, the choice of outer boundaries will have a material impact on the result. Thus, while the company represents its peak is 9:00 a.m. to 9:00 p.m., no evidence was presented to justify use of the entire twelve hour period as "peak". Nor was there any evidence as to the variation in peak/off peak rates which would result from utilizing a ten hour peak period from 9:00 a.m. to 7:00 p.m., or any other comparable period.

reflect the forward looking requirements of a TELRIC study. The telecommunications network is experiencing significant changes on a daily basis, as exemplified by the tremendous growth in InterNet traffic, a great deal of which represents off peak usage which was not previously present. It also represents longer holding times for calls than previously experienced. On a forward looking basis, it is doubtful NYNEX's selection of busy hour periods and investment allocation is valid.

The establishment of incorrect price signals for time of use can have the same negative impacts on emerging competitors as other types of cost and price misallocation. Because NYNEX has not sufficiently demonstrated the appropriateness of the peak/off peak periods it has selected, or that its cost allocation properly measures the difference in cost between peak and off peak service, no time of use pricing differentiation should be established at this time.

IV. CONCLUSION

As set forth herein, the Department should adopt the following principles in connection with intercarrier compensation:

(1) E-911 pricing should be established on a per call basis at the same rate as terminations for traditional 911 calls;

(2) Per minute rates for termination of traffic should be established at $.002 per minute for end office terminations and $.004 per minute for tandem terminations;

(3) TCG (and other carriers) should be given an option of a per minute or a flat rated capacity charge for interconnection;

(4) NYNEX should compensate TCG for terminating traffic delivered by NYNEX at the tandem rate; and

(5) Distinct peak/off peak time of use interconnection rates should not be established at this time.

Respectfully submitted,

Teleport Communications Group, Inc.

By: _____

Keith J. Roland
Roland, Fogel, Koblenz & Carr, LLP
1 Columbia Place
Albany, New York 12207
(518) 434-8112

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Paul Kouroupas, Esq.
Teleport Communications Group, Inc.
One Teleport Drive, Suite 301
Staten Island, New York 10311-1011
(718) 355-2634

Its Attorneys

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